WHAT IS CLAIMED:

1. At least three vectors wherein a first vector contains a lentiviral *gag* gene encoding a lentiviral gag protein, wherein the lentiviral *gag* gene is operably linked to a promoter and a polyadenylation sequence, (2) a second vector containing an *env* gene encoding a functional envelope protein, wherein the *env* gene is operably linked to a promoter and a polyadenylation sequence; and (3) a lentiviral pol gene encoding a lentiviral pol protein, and wherein said lentiviral pol gene has been modified so that it expresses integrase that has been modified so that said integrase is not capable of integration, on one of the first two vectors or on at least a third vector, wherein said lentiviral *pol* gene is operably linked to a promoter and a polyadenylation sequence;

wherein said vectors do not contain sufficient nucleotides to encode the lentiviral gag and pol and the envelope protein on a single vector; and

wherein said vectors do not contain nucleotides of the lentiviral genome referred to as a packaging segment to effectively package lentiviral RNA; and wherein the lentiviral proteins and the envelope protein when expressed in combination form a lentivirus virion containing an envelope protein around a lentiviral capsid; and

(4) a packaging vector containing a nucleic acid sequence encoding a heterologous nucleic acid, wherein the nucleic acid sequence is operably linked to a promoter and a lentiviral packaging sequence necessary to package the lentiviral RNA into the lentiviral virion and contains at least one component of an episomal replicon, wherein said episomal replicon comprises a viral DNA origin of replication and a protein that acts as a replication transactivator.

2. The vectors of claim 1, wherein the vectors contain a viral DNA origin of replication.

3. The vectors of claim 2, wherein a separate vector contains a gene encoding a protein that acts as a replication transactivator.

4. The vectors of claim 2, wherein the DNA viral origin of replication is from SIMIAN VIRUS 40, Epstein-Barr virus or BK virus.

5. The vectors of claim 3, wherein the replication transactivator contains a portion of large T-antigen, for Simian Virus 40, large T-antigen for BK virus and EBNA-1 that transactivatoer a viral DNA origin of replication.

6. The vectors of claim 3 wherein the replication transactivator does not contain a domain that binds a human tumor suppressor gene product.

7. The vectors of claims 1, 2, 3, 4, 5 or 6 wherein the env gene is heterologous to the lentiviral genome.

8. The vectors of claim 1, 2, 3, 4, 5 or 6, wherein the heterologous nucleic acid is operably linked to an inducible promoter.

9. The vectors of claims 1, 2, 3, 4, 5 or 6, wherein the lentivirus is a primate lentivirus, a feline immunodeficiency virus (FIV), a visna virus, or an equine infectious anemia virus.

10. The vectors of claims 1, 2, 3, 4, 5 or 6, wherein the heterologous nucleic acid is or encodes a antisense molecule, a ribozyme, a suicide gene, an antibody, a receptor, a cytokine, or a growth hormone.

11. The vectors of claim 10, wherein the heterologous nucleic acid sequence is a suicide gene.

12. The vectors of claim 1, wherein the lentivirus is a human immunodeficency virus (HIV).

13. The vector of claim 10, wherein the ribozyme or antisense molecule is capable of transplicing.

14. The vectors of claim 1, wherein the lentiviral *pol* gene is on the same vector as the lentiviral *gag* gene.

15. A vector system comprising:

(a) a first vector containing a lentiviral *gag* gene encoding a lentiviral gag protein, wherein the lentiviral *gag* gene is operably linked to a promoter and a polyadenylation sequence,

(b) a second vector containing an *env* gene encoding a functional envelope protein, wherein the *env* gene is operably linked to a promoter and a polyadenylation sequence;

(c) a lentiviral pol gene encoding a lentiviral pol protein, wherein said pol protein is at least integrase, wherein said integrase has been modified so that it is not capable of integration, and said pol gene is on the first or second vectors or on at least a third vector, wherein said lentiviral *pol* gene is operably linked to a promoter and a polyadenylation sequence;

wherein said at least first, second and third vectors do not contain sufficient nucleotides to encode the lentiviral gag and pol and the envelope protein on a single vector; and

wherein said vectors do not contain nucleotides of the lentiviral genome referred to as a packaging segment to effectively package lentiviral RNA; and

wherein the lentiviral proteins and the envelope protein when expressed in combination form a lentivirus virion containing an envelope protein around a lentiviral capsid; and

(d) a packaging vector containing a nucleic acid sequence encoding a target molecule selected from a plurality of target molecules, where the nucleic acid sequence is operably linked to a component of an episomal replicon and a lentiviral packaging sequence necessary to package the lentiviral RNA into the lentiviral virion.